APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,487	05/25/2000	Thomas S. Heath	3351-042	6601

7590 01/06/2006		EXAMINER	
Lowe Hauptman Gopstein Gillman & Berner LLP		YODER III, CHRISS S	
c/o Kenneth M Berner			
Suite 310		ART UNIT	PAPER NUMBER
1700 Diagonal Road		2612	
Alexandria, VA 22314			

DATE MAILED: 01/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Supplemental **Notice of Allowability**	Application No. 09/577,487	Applicant(s) HEATH, THOMAS S.	
	Examiner Chriss S. Yoder, III	Art Unit 2612	.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.

2. ☒ The allowed claim(s) is/are <u>7-11 and 13-27</u>. (*Claims are renumbered as 1-20, respectively*)

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some*   c) ☐ None of the:
       1. ☐ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
    * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
       1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
       Paper No./Mail Date _____.
    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)
1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☒ Other <u>See Continuation Sheet</u>.

Continuation Sheet (PTOL-37)　　　　　　　　　　　　　　Application No. 09/577,487

Continuation of Attachment(s) 9. Other: Fax received 8/24/05, 8/25/05, and 9/7/05 .

NGOC-YEN VU
PRIMARY EXAMINER

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Randy Noranbrock on 08/25/2005 and 09/07/2005.

The application has been amended as follows:

Claims 1-6 and 12 have been canceled.

Claims 7-11, 15, and 22-27 have been amended by the Examiner as authorized

by the Applicant on 08/24/2005 (see attached fax dated 08/24/2005).

Claims 13 and 16-21 have been amended by the Examiner as authorized by the

Applicant on 08/25/2005 (see attached fax dated 08/25/2005).

Claim 14 has been amended by the Examiner as authorized by the Applicant on

09/07/2005 (see attached fax dated 09/07/2005).

The amendments to claims 7-11 and 13-27 are listed below:

1-6 (canceled).

7. The method of claim 8, comprising compensating for platform/camera motion.

8. A computer-implemented method of creating a video mosaic, comprising:
       extracting a first individual frame and a second individual frame of imagery from
a series of video frames;
       detecting edges in the first individual frame and the second

individual frame;

following adjacent on pixels until an off pixel is detected;

counting a number of on pixels and if above a preset threshold, designate as a structure;

repeat said searching, said following, and said counting steps until entire frame is structure detected;

determining regions of interest in the first individual frame and the second individual frame based on the detected edges;

identifying commonality from the first individual frame to the second individual frame, including correlating determined regions of interest between the two individual frames by comparing each region of interest in the first individual frame to a region of interest in the second individual frame; and

overlapping the individual frames based on the commonality identified from the first individual frame to the second individual frame and displaying an image representing a continuous area.

9. The method of claim 8, comprising storing the location of on pixels within each designated structure.

10. The method of claim 9, comprising changing value of pixels within a designated structure to avoid use in future structures.

11. The method of claim 8, comprising correlating regions of interest by comparing each region of interest to each other region of interest.

12. (canceled).

13. A computer architecture, comprising:

extracting means for extracting a first individual frame and a second individual frame of imagery from a series of video frames;

detecting means for detecting edges in the first individual frame and the second individual frame;

means for following adjacent on pixels until an off pixel is detected;

means for counting a number of on pixels and if above a preset threshold, designate as a structure;

means for repeating said searching , said following , and said counting steps until entire image is structure detected;

determining means for determining regions of interest in the first individual frame and the second individual frame based on the detected edges detected by the detecting means;

identifying means for identifying commonality from the first individual frame to the second individual frame, including correlating determined regions of interest between the two individual frames by comparing each region of interest in the first individual frame to a region of interest in the second individual frame; and

overlapping means for overlapping the individual frames based on the commonality identified by the identifying means from the first individual frame to the second individual frame and displaying an image representing a continuous area .

14. An article, comprising:
at least one sequence of processor-executable instructions;
a computer-readable medium bearing the processor-executable instructions wherein execution of the instructions by one or more processors causes the one or more processors to:
extract a first individual frame and a second individual frame of imagery from a series of video frames;
detect edges in the fast individual frame and the second individual frame;
follow adjacent on pixels until an off pixel is detected;
count a number of on pixels and if above a preset threshold, designate as a structure;
repeat said detect, said follow, and said count instructions until the entire image is structure detected;
determine regions of interest in the first individual frame and the second individual frame based on the detected edges;
identify commonality from the first individual frame to the second individual frame, including correlating determined regions of interest between the two individual frames by comparing each region of interest in the first individual frame to a region of interest in the second individual frame; and
overlap the individual frames based on the commonality identified from the first individual frame to the second individual frame and display an image representing a continuous area.

15. A computer system, comprising:
a processor; and
a memory coupled to said processor, the memory having stored therein sequences of instructions, which, when executed by said processor, causes said processor to perform the steps of:
extracting a first individual frame and a second individual frame from a series of video frames;
detecting edges in the first individual frame and the second individual frame;
following adjacent on pixels until an off pixel is detected;
counting a number of on pixels and if above a preset threshold, designate as a structure;
repeat said searching , said following , and said counting steps until entire image is structure detected;
determining regions of interest in the first individual frame and the second individual frame based on the detected edges;
identifying commonality from the first individual frame to the second individual

frame, including correlating determined regions of interest between the two individual frames by comparing each region of interest in the first individual frame to a region of interest in the second individual frame;

overlapping the individual frames based on the commonality identified from the first individual frame to the second individual frame and displaying an image representing a continuous area.

16. The computer architecture of claim 13, comprising compensating means for compensating for platform/camera motion.

17. The computer architecture of claim 13, comprising storing means for storing the location of on pixels within each designated structure.

18. The computer architecture of claim 17, comprising means for changing value of pixels within a designated structure to avoid use in future structures.

19. The computer architecture of claim 13, comprising correlating means for correlating regions of interest by comparing each region of interest to each other region of interest.

20. The article of claim 14, further comprising instructions causing the one or more processors to compensate for platform/camera motion.

21. The article of claim 14, further comprising instructions causing the one or more processors to store the location of on pixels within each designated structure.

22. The article of claim 21, further comprising instructions causing the one or more processors to change the value of pixels within a designated structure to avoid use in future structures.

23. The article of claim 14, further comprising instructions causing the one or more processors to correlate regions of interest by comparing each region of interest to each other region of interest.

24. The computer system of claim 15, further comprising instructions causing the one or more processors to compensate for platform/camera motion.

25. The computer system of claim 15, further comprising instructions causing the one or more processors to store the location of on pixels within each designated structure.

26. The computer system of claim 25, further comprising instructions causing the one or more processors to change the value of pixels within a designated structure to

avoid use in future structures.

27. The computer system of claim 15, further comprising instructions causing the one or more processors to correlate regions of interest by comparing each region of interest to each other region of interest.

Allowable Subject Matter

Claims 7-11 and 13-27 are allowed.

The following is an examiner's statement of reasons for allowance:

As for claims 8, the prior art does not teach or fairly suggest the use of a video mosaic system that searches the image for adjacent "on" pixels until and "off" pixel is detected, counting the number of "on" pixels and designating these pixels as a structure if above a threshold.

As for claims 13, the prior art does not teach or fairly suggest the use of a video mosaic system that searches the image for adjacent "on" pixels until and "off" pixel is detected, counting the number of "on" pixels and designating these pixels as a structure if above a threshold.

As for claims 14, the prior art does not teach or fairly suggest the use of a video mosaic system that searches the image for adjacent "on" pixels until and "off" pixel is detected, counting the number of "on" pixels and designating these pixels as a structure if above a threshold.

As for claims 15, the prior art does not teach or fairly suggest the use of a video mosaic system that searches the image for adjacent "on" pixels until and "off" pixel is detected, counting the number of "on" pixels and designating these pixels as a structure if above a threshold.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chriss S. Yoder, III whose telephone number is (571) 272-7323. The examiner can normally be reached on M-F: 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CSY
December 7, 2005

NGOC-YEN VU
PRIMARY EXAMINER